

10/524,812

1-12. (CANCELED)

13. (NEW) A shaft-hub connection (1) comprising:

a shaft (2) comprising;

a first centering segment (A) located at a free end of the shaft having a first diameter ( $d_1$ ),

a second centering segment axially spaced from the first centering segment;

an intermediate toothed segment (B) located axially between the first and second centering segment, and the first centering segment (A) and the intermediate toothed segment (B) as well as the second centering segment (C) have a same second diameter ( $d_2$ ) which is larger than the first diameter ( $d_1$ ) of the front centering segment (A);

a hub (3) having a stepped aperture (11) formed therein for receiving the shaft (2) in an axial direction (X), the aperture consisting essentially of;

a first segment having a first aperture diameter ( $D_1$ );a second segment having a second aperture diameter ( $D_2$ ) which is larger than the first aperture diameter ( $D_1$ ); andwherein the diameter ( $D_1$ ) of the first segment is smaller than the diameter ( $d_2$ ) of the intermediate central toothed segment (B) and when the shaft is inserted into the aperture to form the shaft-hub connection (1), the intermediate central toothed segment (B) is forced into an overlapping axial engagement with the smaller diameter  $D_1$  of the aperture (11) to cut a counter profile in the hub and form a positive interference fit between the central toothed segment (B) and first segment of the hub.14. (NEW) The shaft-hub connection (1) as set forth in claim 13 wherein the first shaft diameter ( $d_1$ ) of the first centering segment (A) is substantially the same diameter as the first segment diameter ( $D_1$ ), and the second diameter ( $d_2$ ) of the second centering segment (C) is substantially the same as the second segment diameter ( $D_2$ ) to form a friction fit.15. (NEW) The shaft-hub connection according to claim 13, further comprising a groove segment (D) located axially between the central toothed segment (B) and the front centering segment (A), the groove segment (D) has a diameter ( $d_3$ ) smaller than the diameter ( $d_1$ ) of the front centering segment (A).

10/524,812

16. (NEW) The shaft-hub connection according to claim 15, wherein the toothed segment (B) has knurled toothing (5) defining a root diameter ( $d_F$ )  $\geq$  the diameter ( $d_3$ ) of the groove segment (D).

17. (NEW) The shaft-hub connection according to claim 13, wherein the second centering segment (C) extends axially to a shaft collar (10) which abuts on a front face (12) of the hub (3).

2/7/06 1:15 PM

- 4 -